

# Long Term Care Highlights



North Dakota Department of Health  
Division of Health Facilities

January 2009



## Who Was Mary Mallon?

*Cathy Myrvik, RN, LRD, CP-FS  
Health Facilities Surveyor*



*Typhoid Mary*

You may not recognize her by her full name, but you may have heard of “Typhoid Mary.” The story of Mary Mallon is a sad but true story of an Irish immigrant who worked as a cook in several homes and facilities in the New York City area in the early 1900s. As Mary moved from job to job, family members living in the households where she worked developed fevers and diarrhea. Several of the people Mary cooked for were hospitalized and diagnosed with typhoid fever.

Investigators were hired to find the source of the outbreaks, but they were unsuccessful at determining the cause. Finally, an investigator with experience in typhoid fever outbreaks began to suspect the cook, Mary Mallon, as the source, and began to research her employment history. The investigator found that from 1900 to 1907, Mallon had worked at seven jobs in which 22 people had become ill, including one young girl who died from typhoid fever.

In March 1907, Mallon was working as a cook in the home of another family. When approached by the investigator about her involvement in the typhoid illness and asked to provide specimen samples, Mary became enraged and refused to cooperate. Mary was convinced she was being persecuted when she had done nothing wrong. She was sure she had never had typhoid fever.

After several attempts, Mallon was finally “captured” and taken to a hospital where typhoid bacilli (*Salmonella typhus*) was found in her stool sample. The health department then transferred Mallon to an isolated cottage (part of Riverside Hospital) on North Brother Island. Mary could not understand how she could have spread disease and caused a death when she hadn’t been sick. In 1909, after having been isolated for two years on North Brother Island, Mallon sued the health department. The judge ruled in favor of the health officials and Mallon, now known as “Typhoid Mary” was sent back to North Brother Island.

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Typhoid fever occurs when individuals ingest food or water that has been contaminated during handling by a human carrier. The human carrier is usually a healthy person who had a previous episode of typhoid fever, but in whom the typhoid bacteria have been able to survive without causing further symptoms. Typhoid cases can be mild, and some people may experience only flu-like symptoms. Carriers continue to excrete the bacteria in their feces and urine, and therefore can spread the typhoid bacillus onto food if they do not wash their hands.

In February of 1910, a new health commissioner decided Mary Mallon could go free, as long as she agreed never to work as a cook again. Mary accepted this agreement and signed an affidavit that she would no longer work as a cook and would take precautions to prevent infection in those with whom she came into contact. Mary was set free, but the story doesn't end there . . .

After her release, Mary began working in other domestic positions (laundry, etc.) which did not pay as well. Since she was feeling fine, and she never really believed she was the one who spread typhoid, Mary eventually went back to work as a cook. In January 1915, a typhoid fever outbreak occurred at the Sloane Maternity Hospital in Manhattan. Twenty-five people became ill and two of them died. Evidence pointed to a newly hired cook, Mrs. Brown who was really Mary Mallon, using another name!

The public was outraged that Mary continued to work as a cook, especially since she knew of her healthy carrier status (even if she didn't believe it). The public felt Mary willingly and knowingly caused pain and death to her victims, especially since she used a fake name to again gain employment as a cook.

"Typhoid Mary" was again sent back to North Brother Island and remained imprisoned there for 23 years, until her death on Nov. 11, 1938. In all, 47 illnesses and three deaths were attributed to Mary Mallon.

## The End.

When the survey team comes to your facility, you can rest assured we will not sentence you to life on an isolated island for violating infection control regulations! However, we will expect that you have an effective infection control program, designed to prevent the development and transmission of disease.

**According to F443 -CFR 483.65(b)(2) "The facility must prohibit employees with a communicable disease or infected skin lesions from direct contact with residents or their food, if direct contact will transmit the disease."**

Food service employees in nursing homes have the potential to transmit disease/infection throughout the facility since they are preparing and serving food for all of the residents. Food service employees can contaminate food when they have been diagnosed with a foodborne illness, when they show symptoms of a



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gastrointestinal illness, or when they have infected lesions. Effective infection control programs should include a system for food service employees to report symptoms or diagnoses related to foodborne illness.

Food service employees in nursing homes, which service high-risk populations, should be excluded from working if they have one of the following symptoms:

- **Vomiting**
- **Diarrhea**
- **Jaundice**
- **Sore throat with fever**

In addition, food service workers should be restricted from working with food if they have an **infected wound** or **pustular boil**. Any cuts, burns, boils, sores, skin infections, or infected wounds should be covered with a clean, dry bandage. Waterproof, disposable gloves or finger cots should be worn over bandages on hands. Food service workers wearing bandages may need to be temporarily reassigned to duties not involving food contact.

There are five pathogens (known as the “**Big Five**”) which are known to be readily transmissible via food by ill food service employees:

- **Hepatitis A virus**
- **Typhoid fever (Salmonella typhi)**
- **E. coli 0157:H7 or other EHEC/STEC**
- **Norovirus**
- **Shigella spp.**

Food service employees should be excluded from working if they have been diagnosed with any of these foodborne illnesses. In addition, the person in charge is required to notify the regulatory

authority when a food employee is jaundiced or diagnosed with any of these pathogens.

**North Dakota Department of Health**  
**Division of Disease Control**  
**800.472.2180 or 701.328.2378**

One of the problems with foodborne illness is that a majority of people do not go in to see a physician when they have symptoms (“it’s just the stomach flu”). Then, if a person does go in, the physician may not order specimen collection to obtain a definitive diagnosis, since many foodborne illnesses in healthy individuals are self-limiting.

The 2005 *Federal Drug Administration (FDA) Food Code* and the *North Dakota Requirements for Food and Beverage Establishments* (adopted August 2008) provide a detailed listing of symptoms, reportable diseases, exclusions and restrictions, and criteria for removal/adjustment/retention of exclusions and restrictions. This multi-tiered, risk-based system ensures removal of infected food workers when they are most likely to transmit a pathogen to food items and provides guidance about when ill food employees can safely return to work.

## **Level 1**

- Involves food employees who are experiencing *active symptoms* of vomiting and diarrhea, with no diagnosis; or experiencing jaundice within the last seven days, with no diagnosis.
- These symptoms are known to be commonly associated with pathogens most likely to be transmitted from infected food workers through contamination of food.
- Also involves food employees who have been *diagnosed* with typhoid fever, or diagnosed with hepatitis A within seven days of jaundice

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or 14 days of any symptoms, or experiencing active symptoms of diarrhea or vomiting, and diagnosed with Norovirus, E. coli, 015:H7 or other Shiga toxin-producing Escherichia coli, or Shigella spp. infection.

- This level poses the highest potential risk, as infected food employees are likely to be excreting high levels of an infectious pathogen, increasing the chance of transmission to food products.

## Level 2

- Involves employees who have been *diagnosed* with a specific agent of concern, but are *not currently* exhibiting symptoms of disease.
- Employees are still likely to be carrying the infectious agent in their intestinal tract, but are less likely to spread the agent into food.
- This level still poses an elevated threat, especially in facilities serving highly susceptible populations, and, therefore, a series of exclusions and restrictions still apply, depending on the pathogen involved.

## Level 3

- Involves employees who are *diagnosed* with a specific agent, but *never* develop any symptoms.
- They employees are typically identified during a foodborne illness outbreak investigation through microbiological testing.
- These employees are asymptomatic and clinically well, but exclusions and restrictions are still applied until they no longer present a risk for foodborne pathogen transmission.

## Level 4

- Involves employees who are *asymptomatic* and *clinically well*, but *may have been exposed* to a listed pathogen and are within the normal incubation period for the disease. (For

example, a food employee attended a function at which he/she ate food that was associated with an outbreak, but the employee remains well).

- These employees present a lower risk than someone who is either symptomatic or who has a definitive diagnosis.
- However, these employees still present a level of risk that is greater than if they had not had the exposure.
- The approach taken for food employees who have had a potential exposure is based on the incubation times (time between exposure and the onset of symptoms) of the various pathogens. This will restrict food employees only up to the time when it is unlikely they will develop symptoms.

This approach links the degree of exclusion and restriction to the degree of risk that an infected food worker will transmit a pathogen through food. This system provides a balance between protecting the health of others and meeting the needs of the food employee and employer.

The employee health provisions listed in the 2005 FDA Food Code are aimed at removing highly infectious food employees from the workplace. They were developed based on the characteristics of the “Big Five” pathogens and the risk of disease transmission associated with symptomatic and asymptomatic carriers. These provisions also account for the increased risk associated with serving food to highly susceptible populations and the need to provide extra protection to those populations.

The development and effective implementation of an employee health policy may help to prevent foodborne illness associated with contamination of food by ill or infected food employees.

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Consider the following questions when designing and implementing an employee health policy:

- First of all, do you have an employee health policy?
- If so, are the food service employees aware of the employee health policy?
- Is the employee health policy available in written format and readily available for food employees?
- Do you require employees to report certain illnesses, condition, symptoms and exposures?
- Are the reporting requirements explained to all employees?
- Who does the establishment notify when a food employee reports a diagnosis with one of the listed pathogens?
- If a food employee reports a diagnosis with one of the “Big Five” pathogens, what questions are asked of the food employee? (The first question every food manager should ask a food employee who reports diagnosis with a listed pathogen is if the employee is currently having any symptoms.)
- What gastrointestinal symptoms would require exclusion of a food employee from working?
- What history of exposure is a food service employee required to report?
- If a food employee reports gastrointestinal symptoms, what criteria are used to allow the employee to return to work?

The person in charge is responsible for ensuring all food employees are knowledgeable and understand their responsibility to report listed symptoms, diagnosis with an illness from a listed pathogen, or exposure to a listed pathogen. The person in charge is also responsible for reporting

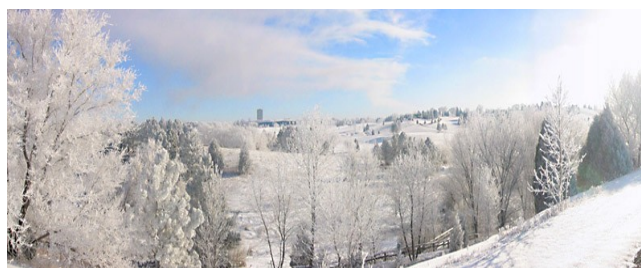
to the Division of Disease Control at the ND Department of Health if a food employee reports a *diagnosis* with a listed pathogen.

Food service employees also share responsibility for preventing foodborne illness and are obligated to inform the person in charge if they are experiencing any symptoms, have a history of exposure to a listed pathogen, or have been diagnosed with an illness caused by a listed pathogen.

Please refer to the North Dakota Requirements for Food Establishments and the 2005 FDA Food Code for more specific information on Employee Health.

Sources:  
2005 FDA Food Code  
SuperSafeMark Guide to Food Safety, 1<sup>st</sup> ed. 2007

Typhoid Mary Sources:  
[www.en.wikipedia.org](http://www.en.wikipedia.org);  
[www.pbs.org/nova/typhoid](http://www.pbs.org/nova/typhoid);  
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[www.history1900s.about.com/a/typhoidmary](http://www.history1900s.about.com/a/typhoidmary)





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## **RAI Update**

*By Joan Coleman  
State RAI Coordinator*

### **Q & A on MDS 3.0**

**Question:** Where can I find the latest information on MDS 3.0?

**Answer:** The Centers for Medicare and Medicaid Services (CMS) posts the latest information related to MDS 3.0 on their website at: [http://www.cms.hhs.gov/NursingHomeQualityInits/25\\_NHQIMDS30.asp](http://www.cms.hhs.gov/NursingHomeQualityInits/25_NHQIMDS30.asp)

### **Q & A on P7 Physician Visits**

**Question:** If a radiologist reviews x-rays and reports, as ordered by the physician, is that considered a physician visit?

**Answer:** It does not count as a physician visit. For a physician visit, there must be a partial or full examination of the resident. Review of an x-ray or a report does not count as a physician visit.

### **Q & A on P8 Physician Orders**

**Question:** When the facility activates a standing order or a facility protocol, does that count as a day for physician order changes? The facility activates the standing orders / facility protocols, and then has the physician sign the order. I know PRN orders are not counted, but are standing orders or facility protocols counted?

**Answer:** Standing orders are defined as: physician orders pre-established and approved for use by nurses and other professionals under specific conditions in the absence of a physician. As with PRN orders, the list of standing orders or the facility protocols have already been written and “the potential need for the service had already been identified.” As indicated above, the standing orders / facility protocols have been “approved for use.” There is no change to the order simply because it has been implemented, so this does not constitute a new or changed order and may not be counted for this MDS item.



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## **CERTIFIED NURSE AIDE REGISTRY UPDATE**

*By Cindy Kupfer and  
Rocksanne Peterson*

The North Dakota Department of Health Nurse Aide Registry is happy to announce the new CNA web site [www.ndhealth.gov/HF/](http://www.ndhealth.gov/HF/) for online verifications, address/name changes and renewals. The registry went live on the ND DoH's website on Oct. 1, 2008, and has received positive feedback from facilities throughout the state.

The North Dakota Department of Health Nurse Aide Registry has encountered phone calls from candidates, with confusion about whom to call to set up a test date. Please have them call either the North Dakota Board of Nursing at 701.328.9777 or Headmaster at 800.393.8664. Both testing vendors are comparable in price and tests.

## **QUOTES:**

*"Courage is the discovery that you may not win, and trying when you know you can lose."*

*By Tom Kruase*

*"Courage doesn't always roar. Sometimes courage is the quiet voice at the end of the day saying, 'I will try again tomorrow.'"*

*By Mary Anne Radmacher*

## **POSTING OF KEYPAD CODES**

*By Monte Engle  
Building Standards / Life Safety Code Manager*

A request for Life Safety Code interpretation was recently forwarded to the Centers for Medicare and Medicaid Services (CMS). This question had to do with whether locked doors equipped with keypads were required to have the code posted at the door. This code when entered in the keypad would unlock the door.

The response from CMS indicated the Life Safety Code **does not** require that a provider post the security code for keypads of locked doors next to or nearby any keypad.

**However, it is CMS's expectation, that during a Life Safety Code survey, K038 will be cited if egress doors on a floor are locked and there is evidence that all cognitively aware residents, staff and visitors do not have access to the method of opening the doors.**

If staff is not aware of how to open the egress doors or cannot open the egress doors, it is very likely an **IMMEDIATE JEOPARDY** situation.

Please note that this information is applicable only to keypads and the posting of the bypass code. If doors are equipped with locking hardware where pushing on the door for a period of time results in the unlocking of the door, then a sign instructing this procedure must be posted. Refer to Section 7.2.1.6.1 of the 2000 Life Safety Code for further information on this sign.



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